

thereby forming a sort of 'vertical kiosk' configuration. In this configuration, the keyboard **14** is stowed vertically in its normal location, and a modified device driver for the display would be used to rotate all graphic output into portrait mode, instead of normal landscape mode. Such device drivers exist for most operating systems, and many people feel that portrait mode is actually more natural than landscape mode for many activities such as document processing and/or web-browsing. Portrait Displays Pivot 1700 product available from Portrait Displays Inc. Pheasanton, Calif., is such a suitable driver system where switching from landscape to portrait orientations can be done on the fly, with no need to reboot.

By creating a tri-fold frame structure which combines the top surface of the base section **16**, the inside surface of the middle section **18**, the inside surface of the display section **20** and the two hinges **29** and **52** into one unified mechanical structure, the external dimensions of the unit **10** can be determined using easily interchangeable covers which mount to the frame to enclose the components. The attachment of differing covers or bases is accomplished by ensuring that the hinges of each are universal and readily match with a mating portion of a hinge on the base being assembled to the cover or visa versa. This ability to easily provide two or more different base units **16**, for example, one containing a half-height slot, another of a thinner variety requiring all or some so-called slim components and yet another being a thicker package that provides better cooling and/or an expansion slot, as well as two or more different sets of electronics of possibly different thicknesses in middle section **18**, allows for a full range of product configurations for economic development and manufactureability using a common tri-fold structure.

Although the present invention and its advantages have been described in detail, it should be understood that various changes, substitutions and alterations can be made herein without departing from the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. A computer system comprising:

a monolithic base section having a keyboard,

a monolithic planar middle section pivotally connected to the base section with a first hinge having a first longitudinal axis of rotation for rotation of the planar middle section about a longitudinal first hinge pin relative to the base section from an angular disposition of 0 degrees to 180 degrees,

a monolithic planar display section, including a display screen, pivotally connected to the planar middle section with a second hinge having a second longitudinal axis of rotation which second longitudinal axis of rotation is parallel to the first longitudinal axis of rotation for rotation of the planar display section about a longitudinal second hinge pin relative to the planar middle section from an angular disposition of 0 degrees to substantially 180 degrees, the base, the middle and the display sections being foldable to form a generally triangular shape with the base section forming the base

of the triangle, and the middle section and the display section forming the other two sides of the triangle, and a registration device to temporarily retain one edge of the display section at one of many possible locations along the depth of the base section to provide for stability for the triangular shape and registration of the display section at any one of many possible locations along the base section, and wherein the shape of the triangle varies as a function of the location of the registration device along the depth of the base section, the registration device being a pin assembly attached to the planar display section, including a registration pin longitudinal in length having a pin tip for engaging the base section alone a guide rail having lateral sides and a bottom surface formed as a part of and disposed along the depth of the base section, the registration pin tip for insertion into any one of a multiplicity of recessed formations in the bottom surface of the guide rail, the registration pin being spring biased with a spring axially disposed about the registration pin to bias the registration pin tip toward the bottom surface of the guide rail formed as a part of the base section.

2. The computer system as set forth in claim 1, wherein the three sections are folded nearly flat, with the planar middle section and the base section forming generally parallel planes, and with the display screen of the planar display section capable of touch screen operation, disposed at substantially 180 degrees relative to the planar middle section and predominately outside of the space formed between the base section and the planar middle section, and oriented to provide a substantially flat display screen work space for touch screen operation.

3. The system as set forth in claim 1, wherein a substantial portion of the solid state computer electronics, including processor, memory and controllers, are packaged in the middle section, and audio speakers are disposed within the middle section for maximizing bass responses from the audio speakers, wherein the outside surface of the middle section acts as a heatsink for the system electronics.

4. The computer system as set forth in claim 3, wherein the base section is disposed upon a docking station which is rotatable.

5. The computer system as set forth in claim 4, wherein the docking station is electrically connected to the computer system.

6. The computer system as set forth in claim 4, wherein the docking station can be rotated at least one hundred and eighty degrees.

7. The computer system as set forth in claim 1, wherein the registration pin tip of the pin assembly matingly engages a material included as a part of the bottom surface of the guide rail, to displace the material upon engagement of the pin with the material to form said any one of the multiplicity of recessed formations as a depression within the material during temporary engagement therewith, wherein the material is resilient and reforms to eliminate the recessed formation as the depression upon disengagement of the registration pin tip with the material.

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